

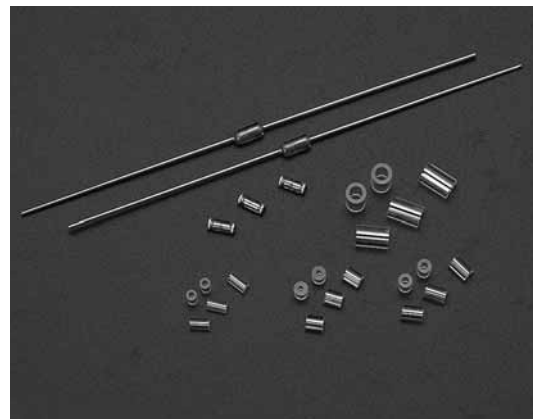
Glass Sleeves for Encapsulating Semiconductor (for Diodes)

LG-16 and LG-20 have long been used in encapsulation of diodes and thermistors.

NL-16 which is lead-free, has been added to our product lineup.

Features

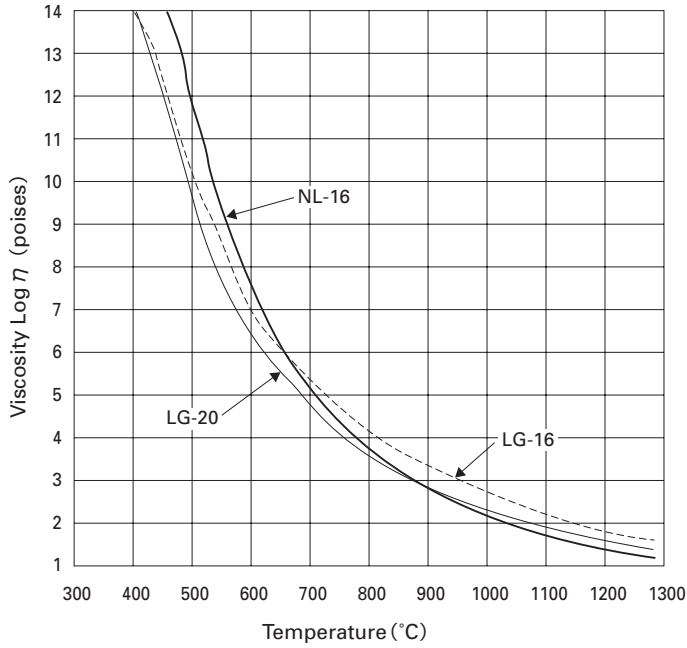
- Low sealing temperatures.
- Good acid resistance in plating process.
- Excellent electrical characteristics.



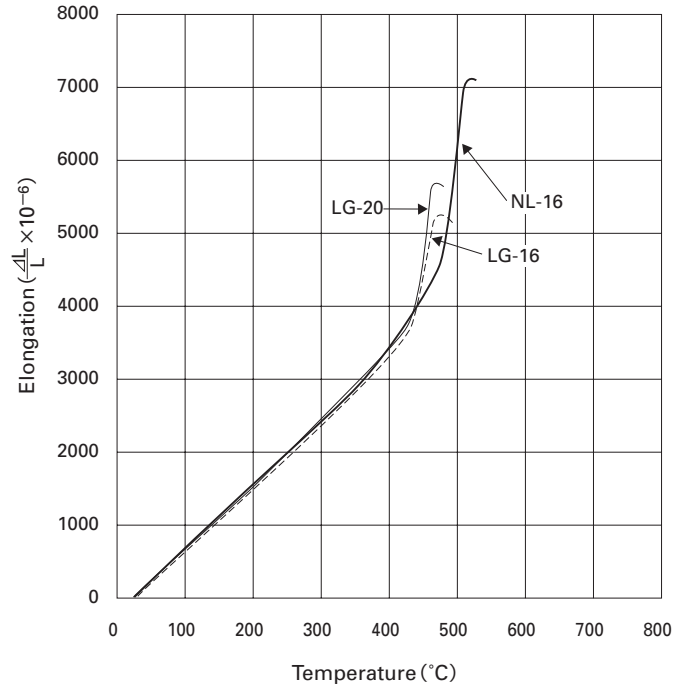
Properties

Properties/Glass Code			LG-16	LG-20	NL-16 (lead-free)
Thermal expansion coeff.	30~380°C	$\times 10^{-7}/K$	91	88	90
Density		$\times 10^3 kg/m^3$	4.31	4.47	2.69
Strain point		°C	390	395	447
Annealing point		°C	430	430	477
Softening point		°C	575	552	599
Sealing temperature		°C	655	620	659
Working point		°C	820	760	777
Volume resistivity Log ρ	150°C	$\Omega \cdot cm$	14.8	14.5	12.5
	250°C	$\Omega \cdot cm$	11.7	11.5	9.5
Dielectric constant	1MHz, 25°C		9.5	9.9	7.1
$\tan \delta$	1MHz, 25°C	$\times 10^{-4}$	8	7	9
Refractive index (n_D)			1.69	1.72	1.56
Color			Clear	Clear	Clear
Glass type			$PbO \cdot K_2O \cdot SiO_2$	$PbO \cdot K_2O \cdot SiO_2$	$SiO_2 \cdot B_2O_3 \cdot RO$

Viscosity



Thermal Expansion



Standard Dimensions

Glass Code	Outer Diameter	Inner Diameter	Length
LG-16	0.55±0.05	0.45±0.05	1.50±0.05
	0.85±0.05	0.70±0.05	2.00±0.05
	1.35±0.05	0.70±0.03	2.50±0.08
	1.35±0.05	1.05±0.03	3.00±0.05
	1.78±0.05	0.85±0.03	2.70±0.08
	1.78±0.05	0.86±0.03	3.81±0.08
	2.60±0.05	1.60±0.05	4.30±0.08
LG-20	1.40±0.05	0.76±0.03	2.67±0.05
	1.78±0.05	0.65±0.03	2.20±0.08
	1.78±0.05	0.76±0.03	3.81±0.08
	2.40±0.05	1.38±0.05	4.30±0.08
NL-16	1.35±0.05	0.70±0.03	2.50±0.08
	1.78±0.05	0.65±0.03	2.20±0.08
	1.78±0.05	0.76±0.03	3.81±0.08
	1.78±0.05	0.85±0.03	2.70±0.08
	1.78±0.05	0.86±0.03	3.81±0.08

Other dimensions and tolerances are available upon request.